New and Noteworthy Hemiptera from New England.¹

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During the past two years I have examined a large number of New England Hemiptera, among which I have found several new forms and numerous species not hitherto supposed to occur in this region. The records noted herewith are of special interest, and in several cases the known range of the species is materially extended. Such results show clearly how inadequate is our present knowledge as a basis for generalizations on the distribution of the Hemiptera, and they emphasize the importance of intensive investigations restricted to limited areas.

GERRIDAE.

Gerris argenticollis sp. nov. (Fig. a).

Dark velvety brown above with fine sericeous pubescence. Anterior lobe of the pronotum with median and marginal yellow stripes, the former faint, the latter clothed with thick silvery pubescence; posterior lobe with yellow margins. Inner margins of hemielytra marked at base with white between the veins. Under surface black or silvery depending on the direction of the light; acetabula, bases of anterior legs and margins of abdomen marked conspicuously with yellow; omphalium and legs variable, black to pale brown.

Relative proportions: of antennal segments, 1st 26, 2nd 13, 3rd 12, 4th 10; of intermediate legs, femur 50, tibia 43, 1st tarsal segment 20, 2nd 10.

Thorax comparatively robust; abdominal spines not reaching apex of abdomen.

8. Fifth abdominal sternite notched at middle of posterior margin; sixth abdominal sternite not carinate, ventral surface of abdomen not



Male genitalia of Gerris, ventral view; a, G. argenticollis n. sp.; b, G. marginatus Say; c, G. buenoi Kirk.

¹ Contributions from the Entomological Laboratory of the Bussey Institution, Harvard University, No. 109. distinctly depressed just anterior to genital segment (as it is in *buenoi*), median ventral (second) emargination narrow, semicircular; genital segment narrow, Fig. *a*.

Q. Lateral plates of genital segment together very slightly wider than long, widest at middle, carinate ventrally.

Length from tip of tylus to apex of abdominal spines, 3 7.5-8 mm.; 9 8-8.5 mm.

Holotype (\$) and allotype (taken in copulation) in my collection; paratypes in the Museum of Comparative Zoology, Cambridge; Boston Society of Natural History; United States National Museum; and the Academy of Natural Sciences, Philadelphia.

Described from 10 males and 16 females taken at Forest Hills, Massachusetts, 26 Åpril, 4 May, 20 May, 1915, from a woodland pond where it was associated with G. marginatus Say and G. buenoi Kirk. A female specimen from Southern Pines, North Carolina, 15 March, 1915 (Manee) belongs to this species. This form pertains to the subgenus Gerris. It is distinguished from G. buenoi and G. marginatus by the white markings at the base of the hemielytra, the form of the genitalia, Figs. a-c, and the marginal stripes of the anterior lobe of the pronotum which are not silvery in the former and lacking in the latter.

MIRIDAE.

Heterocordylus malinus Reut. Durham, New Hampshire (No. 2485, W. & F.).

This is the most northern record for the species, and the first indication of its occurrence in New England. It is seriously destructive in New York, where it is known as the "apple red-bug."

Pithanus maerkeli H. S. Eastport, Maine, 15 July, 1909 (C. W. Johnson).

In going over some unmounted material belonging to the Boston Society of Natural History, I recently came across seven brachypterous specimens of this European species, which were taken by sweeping in a field. This record, the first for New England, indicates the establishment of the species in this country. It was first recorded by Olsen, from

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Long Island, and I have lately seen a specimen from Truro, Nova Scotia, taken by Mr. W. H. Brittain.

HEBRIDAE OF NAEOGEIDAE.

Hebrus (or Naeogeus) burmeisteri Leth et Sev. Edgartown, Martha's Vineyard, Massachusetts, 28 June, 1912. (C. W. Johnson).

One specimen only of this species has been present in the material which I have thus far examined.

REDUVIIDAE.

Apiomerus ventralis Say. Monmouth, Maine, 26 June, 1906, Framingham, Massachusetts, 12 June, 1904.

One of several unusually interesting Hemiptera collected by Mr. C. A. Frost, the coleopterist. It has been considered a southern and western species.

Zelus socius Uhl. Monmouth, Maine, 18 July, 1914 (Frost), Hopkinton, Massachusetts, 14 June, 1914 (Frost), Portland, Connecticut, 10 August, 1913 (Walden).

These I believe to be the first New England records for this species.

TINGITIDAE.

Galeatus peckhami Ashm. Mt. Washington (Glen House, Osgood Trail), New Hampshire, 20 July, 1915 (C. W. Johnson).

This curious Tingitid is a notable addition to the New England fauna.

CORIZIDAE.

Corizus hyalinus Fab. Woods Hole, Massachusetts, 2 July, 1905 (J. A. Cushman).

This species inhabits the warmer regions of the Old and New Worlds and is an addition to the rather long list of more typically southern forms occasionally found along the southern coast of New England.

COREIDAE.

Anasa repetita Heid. Wallingford, Connecticut, 1911 (D. J. Caffrey), Boston (near Chestnut Hill), Massachusetts, 24 Sept., 1914 (Parshley).

The first New England records for this species were published by Mr. C. W. Johnson, Psyche, 1914, p. 82. I took the specimen noted above while sweeping underbrush in open woods, together with *A. armigera*. Anasa armigera Say. Boston, Massachusetts, 24 Sept., 1914; 13 Oct., 1915 (Parshley).

I believe that these are the first New England records for this species. The two specimens were taken at almost the same spot in two successive years. The individual captured in 1914 differs in some details from typical western specimens in my collection, but the other is so distinctly intermediate as to forbid even racial separation from typical *armigera*.

PENTATOMIDAE.

Zicrona caerulea Linn. Newbury Neck (near Surrey), Maine, 22-24 June, 1904 (F. A. Eddy).

This cosmopolite is widely distributed in the West, but there is only one other record of its occurrence in New England, (Mt. Washington, New Hampshire). I have compared the specimen with others in my collection from the Caucasus and Java and note but slight differences apart from size.

A New Species of Heterothrips (Thysanoptera) from Eastern United States.

By J. DOUGLAS HOOD, U. S. Biological Survey, Washington, D. C.

Heterothrips vitis sp. nov.

1913—*Heterothrips arisaemae* Morgan, Proc. U. S. Nat. Mus., Vol. 46, p. 44. (Appomatox, Virginia; on wild grape). (A misidentification, nec Hood, 1908).

Female (*macropterous*).—Length about 1 mm. Color dark blackish brown, with tarsi and distal ends of all tibiae very pale yellow; basal portions of antennal segments 3 and 4 more or less yellowish, the remainder of antenna grayish brown.

Head about 1.6 times as long as median dorsal length and about 0.7 as long as prothorax, widest near base, cheeks tapering roundly anteriorly; surface closely transversely striate and with a few minute spines, impressed in the region of the anterior ocellus; frontal costa with deep, U-shaped emargination; ocellar area not delimited by chitinous lines. Eyes setose, about two-thirds as long as head, slightly wider than their dorsal interval, not bounded behind by a chitinous line. Ocelli of posterior pair twice the diameter of anterior ocellus, about half as wide as their interval. Antennae about 2.8 times as long as head; segment 3 more or less conical and about 2.8 times as long as

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